

CLAIMS

We Claim:

- 1 1. A connection cable comprising:
 - 2 an optical cable; and,
 - 3 an integrated electrical connector permanently fixed to the optical cable,
 - 4 the integrated electrical connector being for plug-in connection to a matching
 - 5 electrical connector on a target device.

- 1 2. A connection cable as in claim 1 additionally comprising:
 - 2 a second integrated electrical connector permanently fixed to the optical
 - 3 cable, the second integrated electrical connector being for plug-in connection to
 - 4 a matching electrical connector on a second target device.

- 1 3. A connection cable as in claim 1 wherein the optical cable consists of a
- 2 single optical fiber.

- 1 4. A connection cable as in claim 1 wherein the optical cable consists of
- 2 multiple optical fibers.

- 1 5. A connection cable as in claim 1 wherein data transmission through the
- 2 optical cable is at least one of the following:
 - 3 digital data transmission;
 - 4 analog data transmission.

1 6. A connection cable as in claim 1 wherein the matching electrical
2 connector is compatible with at least one of the following protocols:
3 universal serial bus (USB) protocol;
4 USB 2;
5 IEEE 1394 (Firewire);
6 Firewire 800;
7 Ethernet;
8 Enterprise Systems Connection (ESCON);
9 Infiniband;
10 a proprietary system interconnection.

1 7. A connection cable as in claim 1 wherein data transmission through the
2 optical cable is compatible with at least one of the following:
3 synchronous optical network (Sonet) protocol;
4 optical fibre channel protocol;
5 Ethernet protocol.

1 8. A method for constructing a connection cable comprising the
2 following step:
3 permanently fixing an integrated electrical connector to an optical cable,
4 the integrated electrical connector being for plug-in connection to a matching
5 electrical connector on a target device.

1 9. A method as in claim 8 additionally comprising the following step:
2 permanently fixing a second integrated electrical connector to the optical
3 cable, the second integrated electrical connector being for plug-in connection to
4 a matching electrical connector on a second target device.

1 10. A method as in claim 8 wherein the optical cable consists of a single
2 optical fiber.

1 11. A method as in claim 8 wherein the optical cable consists of multiple
2 optical fibers.

1 12. A method as in claim 8 wherein data transmission through the optical
2 cable is at least one of the following:
3 digital data transmission;
4 analog data transmission.

1 13. A method as in claim 8 wherein the matching electrical connector is
2 compatible with at least one of the following protocols:
3 universal serial bus (USB) protocol;
4 USB 2;
5 IEEE 1394 (Firewire);
6 Firewire 800;

7 Ethernet;
8 Enterprise Systems Connection (ESCON);
9 Infiniband;
10 a proprietary system interconnection.

1 14. A method as in claim 8 wherein data transmission through the optical
2 cable is compatible with at least one of the following:
3 synchronous optical network (Sonet) protocol;
4 optical fibre channel protocol;
5 Ethernet protocol.

1 15. A method for connecting two target devices comprising the following
2 steps:
3 plugging a first integrated electrical connector permanently affixed to an
4 optical cable into a matching electrical connector of a first target device; and,
5 plugging a second integrated electrical connector permanently affixed to
6 the optical cable into a matching electrical connector of a second target device.

1 16. A method as in claim 15 wherein the optical cable consists of a single
2 optical fiber.

1 17. A method as in claim 15 wherein the optical cable consists of multiple
2 optical fibers.

1 18. A method as in claim 15 wherein data transmission through the
2 optical cable is at least one of the following:
3 digital data transmission;
4 analog data transmission.

1 19. A method as in claim 15 wherein the matching electrical connector is
2 compatible with at least one of the following protocols:
3 universal serial bus (USB) protocol;
4 USB 2;
5 IEEE 1394 (Firewire);
6 Firewire 800;
7 Ethernet;
8 Enterprise Systems Connection (ESCON);
9 Infiniband;
10 a proprietary system interconnection.

1 20. A method as in claim 15 wherein data transmission through the
2 optical cable is compatible with at least one of the following:
3 synchronous optical network (Sonet) protocol;
4 optical fibre channel protocol;
5 Ethernet protocol.